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13. ABSTRACT (Maximum 200 words) Funding of \$5,000 from the Office of Naval Research was received which partially supported the travel expenses of a set of invited speakers for the 1999 ACS Award in the Chemistry of Materials. These funds were divided amongst the participants from the United States. This symposium was jointly organized by John Reynolds (University of Florida) and Marie Angelopolous (IBM). The Polymeric Materials Science and Engineering (PMSE) Division held a special symposium in honor of the Chemistry of Materials Award winner, Alan G. MacDiarmid, Blanchard Professor of Chemistry at the University of Pennsylvania, at the Spring 1999 ACS National Meeting in Anaheim, California.					
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Contributions of the Symposium
1999 ACS Award in the Chemistry of Materials
Sponsored by E. I. DuPont de Nemours and Company, Inc.

Funding of \$5,000 from the Office of Naval Research was received which partially supported the travel expenses of a set of invited speakers for the 1999 ACS Award in the Chemistry of Materials. These funds were divided amongst the participants from the United States. This symposium was jointly organized by John Reynolds (University of Florida) and Marie Angelopolous (IBM).

The Polymeric Materials Science and Engineering (PMSE) Division held a special symposium in honor of the Chemistry of Materials Award winner, Alan G. MacDiarmid, Blanchard Professor of Chemistry at the University of Pennsylvania, at the Spring 1999 ACS National Meeting in Anaheim, California.

Professor MacDiarmid was recognized for pioneering discoveries and sustained efforts in the field of materials chemistry in general and the area of electrically conducting and electroactive polymers specifically. Following a significant research career devoted to silicon and sulfur-nitrogen chemistry, Professor MacDiarmid, in collaboration with Alan Heeger and Hideki Shirakawa, began the field of electrically conducting polymers in the late 1970's through their work with polyacetylene. Professor MacDiarmid subsequently pioneered work in using polyacetylene as an electrode material and, in this, initiated the field of conductive polymer batteries. Further work led by Professor MacDiarmid involved the development of polyaniline, ultimately the first conducting polymer made commercially available on a large scale. In recent years he has refined polyaniline chemistry with a deeper understanding of its chemical and electrochemical properties, along with making contributions to developing soluble derivatives and utilizing it in practical applications.

Through his research, Professor MacDiarmid is the co-author of approximately 600 papers in the fields of silicon hydrides, silicon transition metal carbonyls, organosilicon monomers and polymers, fluorene compounds of silicon, sulfur and phosphorous, silicon adducts with bipyridyl radical-anions, sulfur-nitrogen chemistry, and the synthesis, chemical and electrochemical doping, chemistry, conductivity, magnetic and optical properties, processing and structure of conducting polymers, poly(sulfur nitride), polyacetylene, polypyrrole, and polyaniline. In addition, he holds over 20 patents in the above areas.

Professor MacDiarmid received his B.Sc. in 1948 from the University of New Zealand followed by his M.Sc. in 1950. He subsequently received a Fulbright Scholarship to the University of Wisconsin where he was awarded a Ph.D. degree in 1953. He then studied at the University of Cambridge (England) on a Shell Company postgraduate fellowship (New Zealand), and received a second Ph.D. in 1955. He has received a number of honorary degrees, including honorary doctorates from Elizabethtown College, Linköping University (Sweden) and the Universite de Mons Hainaut (Belgium). He has been the recipient of a number of awards including the 1971 ACS Fredrick Stanley Kipping Award in organosilicon chemistry, the Madison Marshall Award in 1982 (North Alabama Section, ACS), the Doolittle Award (ACS Div. of Organic Coatings and

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Plastics Chemistry), the Centenary Medal of the Royal Society of Chemistry (England, 1983), and the Jeremy I. Muscher Memorial Lectureship at the Hebrew University in Jerusalem, Israel. In 1984 he was named a "Chemical Pioneer" by the American Institute of Chemists and in 1985 he received a "Top 100" Innovation Award from Science Digest. In 1988 he was named Blanchard Professor of Chemistry at the University of Pennsylvania. In 1989 he received the John Scott Award from the city of Philadelphia and subsequently received the Frances J. Kramer Award from Franklin Institute in Philadelphia in 1993. Professor MacDiarmid is presently on the editorial boards of numerous journals, including *Inorganic Chemistry*, *Inorganic Syntheses*, and *Synthetic Metals*. In 1975 he served as the Chairman of the Inorganic Division of the ACS and has served several terms as Councilor and Member of the Board of the Philadelphia Section of the ACS.

The Invited Speakers and the titles of their presentations are as follows:

Electronically Conducting Polymers and Applications, K. J. Wynne

Ring Opening Metathesis Polymerization Using Well-Defined Initiators. R. H. Grubbs, C. Bielawski, D. Elder, E. Bellmann, M. Weck

Electroluminescent Di-Substituted Polyacetylenes. A. J. Epstein, R. G. Sun, Y. Z. Wang, D. K. Wang, Q. B. Zheng

From One-Dimensional Conductors to Higher Dimensional Supramolecular Architectures and Devices: Design Strategies and Problems. R. L. Elsenbaumer, S. Satyanarayana, D. S. Marynick

Chemical Amplification in Polythiophenes and Its Application in DUV Lithography. S. Holdcroft, J. Yu, M. Abley, C. Yang

Electrochemistry of Conducting Polymers: From Batteries to Electrochromic Devices. J. R. Reynolds

Are Properties of Polyaniline Controlled by Its Isomeric Composition? A. G. MacDiarmid

Time-Resolved Forster Energy Transfer in Polymer Blends. A. J. Heeger, A. Dogariu, R. Gupta, H. Wang

Photonic Crystals from Opals: Synthesis, Structure, and Properties. R. H. Baughman, A. A. Zakhidov

Electroactive Aniline Oligomers: Chemistry and Biochemical Properties. Y. Wei, S. Li, M. Lin

Whipping Polyaniline into Shape. G. G. Wallace, V. Aboutanos, L. A.P. Kane-Maguire, I. Norris, E. Strounina, P. C. Innis, D. Zhou

Effect of Structural Morphology on the Electrical and Mechanical Properties of
Conductive Polyaniline Formed from Emeraldine and Leucoemeraldine Base. R.
V. Gregory, S. S. Hardaker

Rheokinetic Analysis of Highly Concentrated, High Molecular Weight
Emeraldine Base (EB) Solutions. B. R. Mattes, D. Yang